

REMARKS

This Response is filed in reply to the Advisory Action dated January 20, 2010 (hereafter “Advisory Action”) and the final Office Action dated October 5, 2009 (hereafter “Office Action”), issued in connection with the above-identified application. A petition for a two-month extension of time and a request for continued examination (RCE) accompany this Response. Claims 16, 18, 19, 21 and 22 are pending in the present application. With this Response, no claims have been amended, and no new matter has been introduced. Favorable reconsideration is respectfully requested.

In Office Action, claim 21 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Specifically, the Examiner alleged that claim 21 recites the limitation “calculates an appropriate correction value of the angle formed between the two glass plates” in lines 1-2, which lacks proper antecedent basis. In the response filed on December 31, 2009, claim 21 was amended to address the rejection under 35 U.S.C. 112, second paragraph. Accordingly, the Applicants assume that the rejection under 35 U.S.C. 112, second paragraph, has been withdrawn.

In the Office Action and Advisory Action, claim 16 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al. (U.S. Patent No. 6,670,603, hereafter “Shimada”) in view of Pate (U.S. Patent No. 7,187,343, hereafter “Pate”).

However, the Applicants assert that the cited prior art fails to disclose or suggest at least all the features recited in independent claim 16. Independent claim 16 recites the following features:

“[a] video projector for projecting video, comprising:

a projection optical system which projects video by short-wavelength laser light sources which emit laser lights as linear polarized lights of at least three colors of red, blue and green;
a camera device which captures external light through the projection optical system;
a camera shake detection unit which detects the amount of camera shake of the video projector; and

a camera shake correction unit which corrects the camera shake according to the detected amount of camera shake,

wherein said projection optical system projects the three-color laser lights without losses in their light amounts using prisms performing polarization, which are arranged such that the

respective axes thereof coincide with the polarizations of the three-color laser lights, and a part of the captured external light is incident on the camera device by the prisms performing polarization, and

wherein said camera shake correction unit performs correction of the camera shake so that projecting positions of the laser lights of three colors of red, blue and green are not deviated when the video is projected, and said camera shake detection unit detects the camera shake amount from videos at four corners of an image that is shot by the camera device.” (Emphasis added).

The present invention (as recited in independent claim 16) is distinguishable from the cited prior art in that a camera shake correction unit performs correction of the camera shake so that projecting positions of the laser lights of three colors of red, blue and green are not deviated when the video is projected, and the camera shake detection unit detects the camera shake amount from videos at four corners of an image that is shot by the camera device.

In the Office Action and the Advisory Action, the Examiner relies on the combination of Shimada and Pate for disclosing or suggesting all the features of independent claim 16. However, the Examiner relies primarily on Pate for disclosing or suggesting the features of the camera shake detection unit of the present invention (as recited independent claim 16).

Specifically, in the Advisory Action, the Examiner alleges that Pate discloses or suggests a camera device for detecting distortion (camera shake in the image), and since Pate detects a calibration image area which overlaps with the principle image area completely (see col. 2 line 2-3) and the principal image is rectangular having four corners (see element 14, Fig. 1), the reference also discloses detecting the camera shake amount from videos at four corners of an image that is shot by camera device.

Pate, however, more accurately discloses a calibration technique that includes: 1) projecting the image onto the display screen to generate a reflected image; 2) comparing the reflected image with the video image data to generate a difference between the reflected image and the video image; and 3) modifying the projected video image to reduce the difference between the reflected image and the video image.

The object of Pate is not to correct the camera shake amount but to compensate the color characteristics. Therefore, it is not possible to realize correcting the camera shake amount,

which is the object of the present invention, by only performing calibration from the images at four corners of the image captured using the camera device disclosed by Pate.

Moreover, Shimada is not relied on by the Examiner for disclosing or suggesting a camera shake detection unit. Accordingly, no combination of Shimada and Pate would result in, or otherwise render obvious, independent claim 16.

In the Office Action and the Advisory Action, claim 22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada in view of Pate, and further in view of Kiyooki (Japanese Application No. 2002/328428, hereafter “Kiyooki”); and claims 18, 19 and 21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada in view of Pate in view of Kiyooki, and further in view of Tanaka (U.S. Patent No. 5,479,236, hereafter “Tanaka”).

Claims 18, 19, 21 and 22 depend (directly or indirectly) from independent claim 16. As noted above, Shimada in view of Pate fails to disclose or suggest all the features now recited in independent claim 16 (as amended). Additionally, Kiyooki and Tanaka fail to overcome the deficiencies noted above in Shimada and Pate. Accordingly, no combination of Shimada and Pate with Kiyooki or Tanaka would result in, or otherwise render obvious, claims 18, 19, 21 and 22 at least by virtue of their dependencies from independent claim 16.

In light of the above, the Applicants submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue.

The Examiner is requested to contact the undersigned attorney by telephone to resolve any issues remaining in the application.

Respectfully submitted,

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